

1 What is claimed is:

*Sub 21*  
1. A cover for a wiring aperture through a surface  
of an item of furniture and the like, the cover comprising  
5 a plug member and a closure member for an opening formed  
in the plug member, the plug member including a body  
having a planform shape similar to but larger in dimension  
than a selected portion of a selected wiring aperture to  
10 be covered and a substantially flat obverse surface,  
projection means depending from a reverse surface of the  
body for mating with boundaries of the aperture to be  
covered and for positioning the plug member in the  
15 aperture with a peripheral margin of the body in overlying  
relation to the surface in which the aperture is present,  
the projection means being located on the body about a  
space which opens away from the body reverse surface, the  
20 plug member opening being defined in the body and  
extending from inwardly of the body peripheral margin to  
and through the body peripheral margin, the closure member  
for the body opening being captive to the body and movable  
25 relative to the body between a) a closed position in which  
the closure member closes the opening and has an edge  
thereof essentially continuous with the body peripheral  
margin adjacent the opening, and b) an open position in  
30 which the closure member depends from the body reverse  
surface in the space without projection above the body  
obverse surface and in which the opening is fully open  
35 through the body, the closure member having an obverse  
surface substantially flush with the body obverse surface

1 in the closed position of the closure member.

2. A wiring aperture cover according to claim 1  
5 including means cooperating between the plug and closure  
member for releasibly holding the closure member in its  
closed position.

10 3. A wiring aperture cover according to claim 2  
wherein the means cooperating between the plug and closure  
members includes means confining part of the motion of the  
closure member relative to the body into and out of the  
15 closed position to sliding motion.

4. A cover for a wiring aperture as recited in  
20 claim 1 comprising means integral to the body affording  
slidable cooperation of the closure member within the plug  
member opening.

25 5. A cover for a wiring aperture as recited in  
claim 4 comprising means integral to the body limiting  
sliding of the closure member away from the plug member  
opening to a position within the opening where the closure  
30 member can rotate downward to its open position.

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1           6. A cover for a wiring aperture as recited in  
claim 1 comprising means integral to the body affording  
captive cooperation of the closure member within the body  
5 and accommodating pivoting of the closure member to and  
from its open position.

10           7. A cover for a wiring aperture as recited in  
claim 1 comprising means integral to the body affording  
locking cooperation between the closure member and the  
body when the closure member is inserted completely within  
15 plug member opening.

18 ~~8.~~ ~~A wire management grommet comprising:~~  
20           ~~an annular liner substantially in the form of~~  
~~a generally hollow cylindrical sleeve;~~  
            ~~a cap having a skirt sized to fit snugly yet~~  
~~releasably within the sleeve;~~  
            ~~an opening formed in the cap extending from~~  
25           ~~proximate an inner portion to an outer marginal edge of~~  
~~the cap;~~  
            ~~a closure member cooperating with the opening,~~  
30           ~~the closure member being captive to and movable within the~~  
~~cap and having a boss at a first end thereof and a base~~  
~~at a second opposite end;~~  
            ~~means for fitting and locking the closure member~~  
35           ~~within the opening; and~~  
            ~~means for affording motion of the closure member~~  
~~from a position closing the opening to a position fully~~

1 exposing the opening, both the closure member and the  
2 means for affording motion being substantially hidden in  
3 a topside view of the cap when the closure member is in  
4 its position fully exposing the opening.  
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9. A grommet as recited in claim 8 wherein the cap  
comprises:

10 an underside surface having a set of parallel  
11 ribs depending from the surface and positioned adjacent  
12 to each side of the opening.

15 10. A grommet as recited in claim 9 wherein each rib  
16 further comprises a flange integral to the rib, each  
17 flange originating proximate the midpoint of the rib's  
18 length and depending from the rib's surface.  
20

11. A grommet as recited in claim 8 wherein the  
~~closure member comprises~~

25 ~~a boss located at one end of the closure member~~  
~~that extends outwardly away from the closure member's top~~  
~~surface~~ <sup>Said boss has</sup> a shape and size conforming with  
the opening, the cap's surface, and the cap's marginal  
30 edge when fitted within the opening; and  
B the closure member comprises  
a pair of tongues extending outwardly away from  
each side of the closure member proximate the boss.  
35

1           12. A grommet as recited in claim 8 wherein the  
means for fitting and locking the closure member within  
the opening comprises

5           a pair of grooves formed between the underside  
surface of the cap and a cooperating pair of ribs integral  
to the cap, the grooves being positioned adjacent the  
opening;

10           a pair of tongues, each extending  
perpendicularly outward away from the closure member  
proximate the boss, the tongues being sized to permit  
slidable interaction within the grooves allowing the  
15           closure member to fit within the opening;

            a detent recess located in the cap's underside  
positioned adjacent to the opening; and

20           a detent boss extending outwardly away from the  
top surface of the tongue, the cooperative interaction  
between the detent recess and detent boss upon alignment  
causing the closure member to hold position in the  
25           opening.

            13. A grommet as recited in claim 8 wherein the  
means for affording motion of the closure member from a  
30           position closing the opening to a position exposing the  
opening comprises

            a set of pins carried by the closure member,  
each pin extending perpendicularly outward from <sup>Said opposite</sup> ~~the base~~ <sup>end</sup>  
35           of the closure member;

            a set of parallel ribs depending from the

1 underside of the cap, each rib being positioned adjacent  
a respective edge of the opening; and

5 a set of grooves formed between the cap's  
underside surface and the ribs, the grooves being sized  
to accommodate the slidable interaction of the closure  
member through the pin and groove interaction, the pin and  
groove arrangement permitting the hingeable rotation of  
10 the closure member within the cap.

14. A wire management grommet comprising  
15 an annular liner having a hollow cylindrical  
sleeve;

a cap engageable in the sleeve and having an  
opening formed through a principle surface of the cap, the  
opening extending to and through an edge margin of the  
20 cap;

a closure member captive to the cap;  
means for affording the closure member to  
25 interlock with the cap;

means for affording the closure member to slide  
within the cap and be a captive component of the cap; and

means for affording the closure member to pivot  
30 ~~relative to the cap.~~

15. A grommet as recited in claim 14 wherein the  
means for <sup>enabling</sup> ~~affording~~ the closure member to interlock with  
35 the cap comprises

a tongue and groove arrangement, the tongue

1 being carried by the closure member and the groove being  
formed between the cap's underside surface and ribs  
carried by the cap, the ribs being of sufficient distance  
5 from the cap's underside to permit the slidable engagement  
of the tongue within the groove when the closure member  
is moved into the opening; and

a detent arrangement comprising a detent recess  
10 and a detent boss, the closure member having a detent  
element complimentary to the detent element of the cap,  
the location of the detent recess and boss being such that  
alignment of both detent elements is achieved upon the  
15 insertion of the closure member completely within the  
opening.

20 16. A grommet as recited in claim 14 wherein the  
means for <sup>enabling</sup> ~~affording~~ the closure member to slide within the  
cap and <sup>be</sup> ~~remain~~ a captive component of the cap comprises

a pin and groove arrangement, the pin being  
25 carried by and extending outwardly from the closure  
member, the groove being carried by the cap;

a stop carried by the cap serving to limit  
travel of the closure member towards the mouth of the  
30 opening; and

a skirt depending from the cap's underside and  
blocking the closure member to prevent disengagement of  
the pin and groove arrangement.  
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1           17. A grommet as recited in claim 14 wherein the  
            <sup>enabling</sup>  
means for ~~affording~~ the closure member to pivot comprises  
            a pin and groove arrangement cooperating between  
5           the closure member and the cap for providing slidable and  
            hingeable movement of the closure member relative to the  
            cap;

            flange means carried by the cap positioned along  
10           the closure member's path of travel;

            wall means carried by the closure member, the  
            interaction between the wall and flange means serving to  
            stabilize and guide the movement of the closure member  
15           toward and away from the underside of the cap; and

            means carried by the closure member for limiting  
            hinging motion of the closure member relative to the cap.

20           ~~Sub  
            #4~~ 18. A cover for a wiring aperture through a surface  
            of an item of furniture and the like, the cover comprising  
            at least one plug member and a closure member for an  
25           opening formed in the plug member, the plug member  
            including a body having a planform shape similar to but  
            larger in dimension than a corresponding portion of a  
            selected wiring aperture to be covered by the cover, the  
30           plug member having a substantially flat obverse surface,  
            projection means depending from a reverse surface of the  
            body for mating with boundaries of the wiring aperture and  
            for positioning the plug member in the aperture with a  
35           peripheral margin of the body in overlying relation to a  
            surface adjacent the aperture, the projection means being



1 located on the body about a space substantially centrally  
of the body which opens away from the body reverse  
surface, the plug member opening being defined in the body  
5 and extending from an inner portion of the body to and  
through an edge of the body, the closure member for the  
body opening being captive to the body and movable  
relative to the body between a) a closed position in which  
10 the closure member closes the opening and has an edge  
thereof essentially continuous with the body edge adjacent  
the opening, and b) an open position in which the closure  
member depends from the body reverse surface in the space  
15 without projection above the body obverse surface and in  
which the opening is fully open through the body.

20 19. A wiring aperture cover according to claim 18  
wherein the cover comprises a pair of plug members  
configured for cooperation with each other in the wiring  
aperture.

25 20. A wiring aperture cover according to claim 19  
wherein the openings in the plug members are located in  
each plug member for registration with the opening in the  
30 other plug member upon cooperation of the plug members  
with each other in the aperture.

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1 *Sub*  
*#5* 21. A wire management grommet for routing wire  
through a wiring aperture formed in a surface of furniture  
and the like, the grommet comprising an annular liner and  
5 a cover, the liner having a hollow cylindrical sleeve of  
shape and dimension substantially similar to the aperture  
to permit cooperation within a furniture wiring aperture,  
the cover comprising at least one plug member for closing  
10 a substantial portion of a hole formed by the liner and  
a closure member for an opening formed in the plug member,  
the plug member including a body having a planform shape  
similar to but larger in dimension than a corresponding  
15 portion of a selected wiring aperture to be at least  
partially covered by the cover, the plug member having a  
substantially flat obverse surface, projection means  
depending from a reverse surface of the body for mating  
20 with boundaries of the liner sleeve seated within the  
furniture wiring aperture, the projection means serving  
to position the plug member in the sleeve with a  
peripheral margin of the body in overlying relation to a  
25 surface adjacent the aperture, the projection means being  
located on the body about a space substantially centrally  
of the body which opens away from the body reverse  
30 surface, the plug member opening being defined in the body  
and extending from an inner portion of the body to and  
through an edge of the body, the closure member for the  
body opening being captive to the body and movable  
35 relative to the body between a) a closed position in which  
the closure member closes the opening and has an edge

1 thereof essentially continuous with the body edge adjacent  
the opening, and b) an open position in which the closure  
member depends from the body reverse surface in the space  
5 without projection above the body obverse surface and in  
which the opening is fully open through the body.

10 22. A wire management grommet as recited in 21  
wherein the liner comprises a sleeve having a rectangular  
planform shape.

15 23. A wire management grommet as recited in 22  
wherein the plug member comprises a square planform shape  
of sufficient size to permit cooperation within the  
rectangular sleeve.

20 24. A wire management grommet as recited in 23  
wherein the aspect ratio of the sleeve is substantially  
2:1

25 25. A wire management grommet as recited in 21  
wherein the liner comprises a sleeve having at least a  
portion of its perimeter circularly cylindrical in shape.  
30

35 26. A wire management grommet as recited in 25  
wherein the plug member has a planform shape which is  
substantially a quadrant of a circle of sufficient radius  
to permit cooperation within the circularly cylindrical-  
shaped sleeve.

1           27. A wire management grommet as recited in 26  
          wherein the number of quadrant-shaped plug members  
          accommodated by the sleeve depends upon whether the  
5       circularly cylindrical-shaped portion of the sleeve  
          comprises 90, 180, 270, or 360 degrees.

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